A field research on the relationship between strategic decision-making speed and innovation performance in the case of Turkish large-scale firms

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Cemal Zehir and Mehtap Özşahin
Gebze Institute of Technology, Kocaeli, Turkey

Abstract

Purpose – This study aims to: identify organizational and environmental factors affecting strategic decision-making speed; examine the relationship between those factors and innovation performance; and clarify the relationship between strategic decision-making speed and innovation performance.

Design/methodology/approach – A survey was conducted on 73 large-scale firms operating in the manufacturing industry in Turkey, in May 2006 and December 2006.

Findings – The research findings related to the linkage between participation and strategic decision-making speed indicate that extensive participation accelerates the pace of decision making.

Research limitations/implications – This survey was conducted on CEOs and top managers of large-scale manufacturing firms operating in Turkey. Cultural differences may become evident from those findings. Also, results might be different if only small and medium-size firms, or firms in different industries were used.

Originality/value – This survey is one of the first to examine the strategic decision speed and innovation performance relationship, revealing the positive effect of strategic decision speed on innovation performance. It is the first one to be conducted in an Eastern country like Turkey, filling the gap in the literature.

Keywords Strategic management, Competitive strategy, Technology led strategy, Innovation, Performance management, Turkey

Paper type Research paper

Introduction

The driving forces of globalization and technological developments have increased the intensity of competition and led to a more turbulent and more dynamic environment which has forced firms to speed their decision-making and operating processes for survival and growth. Thus, the issue of the strategic decision-making process and its speed has captured the attention of business managers and researchers. The survey of Bourgeous and Eisenhardt (1988), which examined the relationship between strategic decision-making speed and high-velocity environments is the pioneering study in that field. There have been few subsequent empirical studies of strategic decision-making speed; however, management advisors have repeatedly prescribed fast decision-making as a source of competitive advantage (Jones, 1993), and

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practitioners claim they make strategic decisions in less and less time (Ancona *et al.*, 2001; Kepner-Tregoe, 2001; Baum and Wally, 2003).

Eisenhardt (1989) conducted an inductive study of eight high-tech firms and found that the fastest strategic decision-makers had the best sales and profitability. However, Judge and Miller (1991) conducted a survey on 32 firms in three industries and observed that there is no relationship between strategic decision-making speed and firm performance, except among the firms in biotechnology, a high-velocity industry. Thus, both Eisenhardt and Judge and Miller found that, in fast-moving environments, firms with better performance made faster strategic decisions (Baum and Wally, 2003).

This study aims to:

- identify organizational and environmental factors affecting strategic decision-making speed;
- examine the relationship between each of those factors and innovation performance; and
- clarify the relationship between strategic decision-making speed and innovation performance.

As a guide in determining those organizational and environmental factors, we draw upon the proposition of strategic decision process theory that the cognition of decision-makers cognition is motivated and constrained by the business environment and organizational structures (Baum and Wally, 2003).

Strategic decision-making speed

The concepts of the strategic decision, decision making, and the strategic decision-making process are useful in understanding the strategic decision-making speed. Strategic decisions are those that determine the overall direction of an enterprise and its ultimate viability in light of the predictable, the unpredictable and the unknowable changes that may occur in its most important surrounding environments (Quinn and Mitzberg, 1997). Strategic decisions are nonprogrammable decisions that involve the commitment of substantial resources at the level of the total enterprise (Wally and Baum, 1994, p. 933).

Decision making, choosing one course of action rather than another in finding an appropriate solution to a new problem posed by a changing world, is generally considered the heart of executive activity in business (Cyert *et al.*, 1995, pp. 35-46). Wheelen and Hunger (2004, pp. 19-21) proposed a model of the strategic decision-making process and identified eight steps in a strong strategic decision-making process:

(1) evaluating current performance;
(2) reviewing corporate governance;
(3) scanning and assessing the external environment;
(4) scanning and assessing the internal corporate environment;
(5) analyzing strategic (SWOT) factors;
(6) generating, evaluating, and selecting the best alternative strategy;
(7) implementing the selected strategy; and
(8) evaluating the implemented strategy via feedback systems.

Strategic decision-making speed is defined as the time spent on the process of strategic decision making (Eisenhardt, 1989, pp. 543-576; Ancona, Okhuysen ve Perlow, 2001, pp. 512-529). In an era of increasingly global markets and shortened product life cycles, the attention given to the speed of the strategic decision-making process is growing (Judge and Miller, 1991, p. 449).

The study of Bourgeois and Eisenhardt (1988) suggested that firm performance and speedy decision making were related and initiated the interest in studying the speed of strategic decision making. Eisenhardt's (1989) research on eight microcomputer firms and Judge and Miller's (1991) research, on a sample of 32 firms revealed that executives who were able to accelerate their cognitive processing, to smooth group processes, and to act confidently made speedier decisions and, in a high-velocity environment, decision-makers who made speedier strategic decisions had superior performance. Wally and Baum (1994) extended this research decision making by examining the impact of executives' cognitive styles and personality characteristics, organizational structures, and industry on the pace of the strategic decision-making process. Then Baum and Wally (2003) examined the effect of environmental dynamism, environmental munificence and organization structures on strategic decision speed, as well as the relationship of each of those factors to strategic decision speed and firm performance.

The speed of strategic decision-making processes is constrained by the individual who is making the decision, the organization in which the decision is made, and the environment in which organization operates. In this study, we focus on organizational factors (participation, autonomy) and environmental factors (technological sophistication, industrial competitiveness) as the determinants of strategic decision-making speed, and examine the relationship of those factors to strategic decision-making speed and innovation performance.

Hypotheses

Organizational factors and strategic decision speed

Participation in decision making refers to joint decision making (Locke and Schweiger, 1979, pp. 265-339) or influence-sharing between hierarchical superiors and their subordinates (Mitchell, 1973, pp. 670-679). Autonomy reflects the extent to which managers one level below the top management team can take strategic actions on their own (Andersen, 2001, p. 107). Participation and autonomy can be used to measure the level of decentralization of strategic decision-making (Anderson, 2001, p. 107). Eisenhardt (1989) emphasized that limited participation and centralized power speed decision making, and Vroom and Yetton (1973) recommended autocratic decision making when speed is essential. Similarly, March and Olsen (1976) argued that involvement by many decision-makers lengthens the decision-making process. Another view is that conflict, that may be result of extensive participation, triggers the interruptions in decision-making process, so slow the pace. Wally and Baum (1994, pp. 932-956) stated that organizations with concentrated power would produce faster strategic decisions because when fewer people are involved in a decision-making process, little conflict occurs, reducing needs for information sharing and consensus seeking. When the potential for process-slowing conflict is low, strategic decision-makers can probably move through the intelligence and design activity phases more quickly than they would otherwise. They can also probably choose more

quickly because they have little need to consult and build consensus (Wally and Baum, 1994, p. 937).

On the other hand Eisenhardt (1989) argued that centralized decision making is not necessarily fast since people may delay making strategic decisions because of anxiety, inadequate information and lack of time. She gave an example of Alpha's autocratic CEO, who prolonged a new product decision process for a year because he worked alone and was burdened with other duties Thus, power centralization may give a CEO or an executive the authority to decide but does not overcome the formidable information and psychological barriers to decision (Eisenhardt). Thus, power centralization (limited participation and autonomy) may not speed the decision-making process. In the light of the Eisenhardt's (1989) findings, we propose:

H1. The more extensive the participation, the faster the strategic decision making.

H2. The higher the level of autonomy, the faster the strategic decision making.

Environmental factors and strategic decision speed

Understanding the environment is a fundamental element of strategic decision-making process because the goals and attitudes of decision-makers are influenced by an organization's environment (Khandwalla, 1977). Although environments can be characterized along several dimensions, in this study we focused on technological sophistication and industrial competitiveness, which Khandwalla (1977) called the sub-dimensions of a turbulent environment because of their impact on strategic decision-making speed. Technologically sophisticated environments are ones in which advanced process or product technologies are widely employed in the industry, changes in technological standards are frequent, and investments in R&D and superior technical personnel are typically heavy (Covin *et al.*, 2001, p. 52). Thus, both technological sophistication and industrial competitiveness lead to a turbulent environment.

Haleblian and Finkelstein (1993, p. 847) argued that, as an environment grows more turbulent, managers will have greater information-processing requirements, so a firm's decision-making tasks grow more difficult. Similarly, it was noted by George in 1980 that many individuals find it difficult to make big decisions in the face of high uncertainty, which is typical of strategic decisions in high-velocity environments. Thus, in a turbulent or high-velocity environment, typified by a highly competitive and technologically sophisticated environment, strategic decision-making processes may take long time, although Eisenhardt and Bourgeois (1988, p. 763) noted that, particularly in high-velocity environments characterized by rapid and discontinuous changes in demand, competition, and technology, there is need for a rapid decision process. Thus, we propose:

H3. The higher the level of technological sophistication in an industrial environment, the faster the strategic decision making.

H4. The higher the level of competitiveness in an industrial environment, the faster the strategic decision making.

Organizational factors and innovation performance

Prastacos *et al.* (2002, p. 63) noted that all organizations must be structured in a way that most effectively handles the contingencies posed by their respective environments. But when these contingencies change – and change occurs frequently and rapidly today – the organizational structure can be formal only in those instances when it creates customer value. Thus, instead of being formal and rigid, the structure needs to become a flexible skeleton that provides ad hoc support for those in the process of accomplishing strategic goals. This exerts a tremendous demand on the structure's ability to adapt and transform itself for enhanced innovation. We believe that decentralized power in the process of accomplishing strategic goals, in the process of formalizing strategic goals and in the process of strategic decision making provides necessary flexibility and enhances innovation. Thus, we propose that:

H5. The more extensive the participation, the better the innovation performance.

H6. The higher the level of autonomy, the better the innovation performance.

Environmental factors and innovation performance

Propelled by the driving forces of technology and globalization, the economic landscape continuously transforms in a way that undermines the relevance of received wisdom on how a firm should be managed and what underlies its success. Firms are called upon to abandon the emphasis on lowering costs and rigid organizational structures and to direct their attention instead to value-creation for the customer, to innovation and to flexibility (Prastacos *et al.*, 2002, pp. 55-56). Firms worldwide recognize that organizational change is not an option but a fundamental necessity in the competitive landscape for survival and make efforts to implement the changes (Hamel and Prahalad, 1996; Prastacos *et al.*, 2002). Grant (1998) and Teece *et al.* (1997) indicated that, for survival and growth in a technologically sophisticated and highly competitive environment, firms need to be innovative and flexible, to be the first user of new ideas, new process, new products, etc. Thus, we propose:

H7. The higher the level of technological sophistication in an industrial environment, the better the innovation performance.

H8. The higher the level of competitiveness in an industrial environment, the better the innovation performance.

Strategic decision-making speed and innovation performance

Bourgeois and Eisenhardt (1988) observed a positive relationship between strategic decision-making speed and firm performance. Eisenhardt (1989) proposed and Judge and Miller (1991, pp. 449-463) confirmed that, in volatile environments, fast decision making is associated with superior performance, and the findings of Baum and Wally (2003) supported those claims. Although the relationship between strategic decision-making speed and firm performance has been well examined, studies on the relationship between strategic decision making and innovation performance are more scarce. This study was inspired by the statement in Baum and Wally that: "Fast decision speeds may improve competitive performance across environments because fast strategic decisions lead to early adoption of successful new products or improved models that provide competitive advantages and early adoption of efficiency-gaining

process technologies even in established industries" and aims to extend the literature about the relationship between strategic decision-making speed and innovation performance. Innovation performance reflects the firm's ability to be a first user of new ideas, devices, systems, policies, programs, processes, product and services (Damanpourn, 1991; Scott and Bruce, 1994; Andersen, 2001, p. 108). We believe that strategic decision-making speed is linked with innovation performance in most organizational settings. Thus, we hypothesize that:

H9. The faster the strategic decision making, the better the innovation performance.

Methodology

Research goal

In this study we aim to:

- identify organizational and environmental factors affecting strategic decision-making speed;
- examine the relationship between each of those factors and innovation performance; and
- clarify the relationship between strategic decision-making speed and innovation performance.

As a guide in determining those organizational and environmental factors, we draw upon the proposition of strategic decision process theory that the cognition of decision-makers is motivated and constrained by the business environment and organizational structures (Baum and Wally, 2003).

Sample and data collection

In May and December 2006, a survey was conducted on 73 large-scale firms operating in the manufacturing industry in Turkey. The determination of "large-scale" was based on inclusion in the 2005 Big 500 Industrial Companies of Turkey (İSO, 2005). The survey targeted the CEO and top management of firms, who have authority and responsibility for strategic decision making. First, 320 firms were contacted through the phone or e-mail and informed about the research. A total of 73 firms agreed to participate in the survey, and 214 questionnaire forms were filled out by the CEOs and top-level executives through face-to-face survey administration. Of the 214 respondents, 43 were general manager/CEO while 171 of them were vice-presidents and division managers who are responsible for strategic decision making as members of the executive board of their firms. Even though face-to-face technique is time-consuming and costly, it ensured that the data would come from CEOs and top-level executives, and not from other staff to whom they may assign it. Data obtained from those 214 questionnaires were analyzed thorough the SPSS 10.0 statistical packet program, and the nine hypothesized relationships, shown in Figure 1, were tested through regression analyses.

Measures

Three decision scenarios, which are shown in the Appendix, were used to measure decision speed:

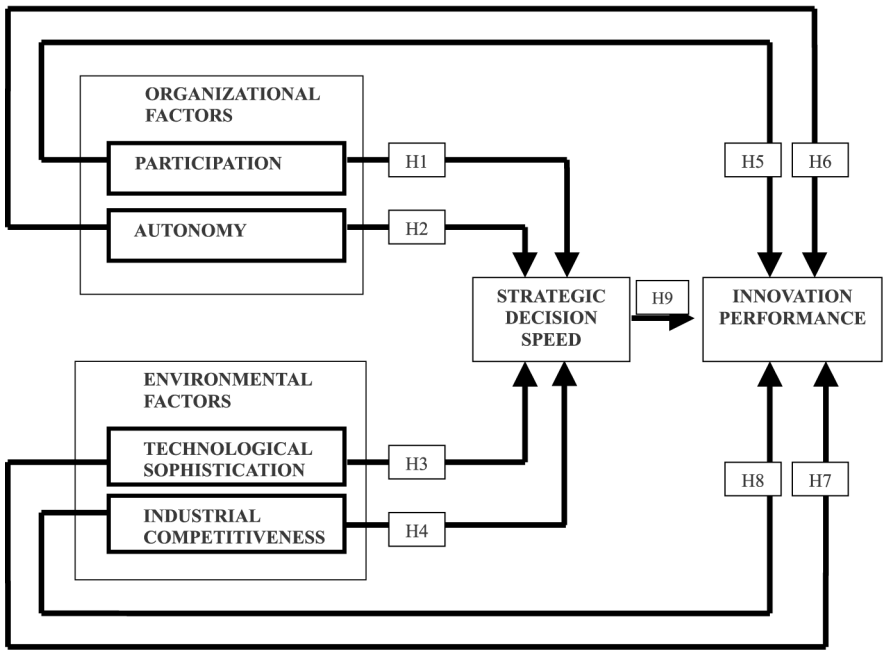

Figure 1.
General research model

(1) an acquisition decision;

(2) a new-product-introduction decision; and

(3) a technology-adoption decision.

The three scenarios were selected because prior academic studies had identified the importance of the topics and indicated that CEOs evaluated the scenarios highly for relevance in their business and current issues (Baum and Wally, 2003).

To measure autonomy, the five-item scale of Torben J. Andersen was used. However, one item was deleted because it showed a weak loading factor to the scale. In addition, one item for participation was deleted because it was loaded to an autonomy factor. To measure intensity of industrial competitiveness, Khandwalla's four-item scale was used with one item excluded because of its weak factor loading. A three-item scale of innovation performance, adapted from Prajogo and Sohal (2006) was used to measure innovation performance.

Overall, 18 items measuring the participation, autonomy, technological sophistication, industrial competitiveness and innovation performance of the firm were scored on five-point Likert-Type scale (Table I). Table II shows the format and number of measurement items, the Croanbach's alpha values, and the research source for each concept. As Table II shows, the Croanbach's alpha for each concept exceeds 0.70, which is an acceptable level.

Research model

We began with the question of "Do participation (*H1*), autonomy (*H2*), technological sophistication (*H3*), industrial competitiveness (*H4*) directly relate to strategic

	1	2	3	4	5
Participation: (1)Never – (5) Always					
To what extent do managers participate in decisions about major changes in the firm's/division's market position?					
To what extent do managers participate in decisions about the firm's/division's moves into new major customer segments and market areas?					
To what extent do managers participate in decisions about new major products and service introductions?					
To what extent do managers participate in decisions about the development of new important capabilities?					
[a]To what extent do managers participate in decisions to adopt new policies and practices?					
Autonomy: (1) Strongly disagree – (5) Strongly agree					
Managers do not start important market activities unless top management has approved the decision					
Managers market to new major customer segments only with approval from top management					
Top management must approve new product and service developments before they can be initiated					
Managers cannot introduce new practices without approval from top management					
[a]Approval from top management is always needed before new internal capabilities can be developed					
Industrial competitiveness: (1)Not intensive – (5) Extremely intensive					
Level of competition for technical manpower acquisition and inputs (e.g. raw materials in the case of manufacturers, cash in the case of banks), parts, or equipment					
[a]Competition in promotion, advertising, selling, distribution etc. in main industry					
Level of competition in the quality and variety of products or services					
Price competition in the industry					
Technological sophistication: (1) Strongly disagree – (5) Strongly agree					
Heavy investments in R&D are characteristic of our industry					
Frequent product technology changes are characteristic of our industry					
Frequent process technology changes are characteristic of our industry					
The widespread employment of new or advanced process or product technologies is characteristic of our industry					
Innovation performance: (1) Strongly disagree – (5) Strongly agree					
The market responds to our product changes and product innovativeness positively					
New product and service introduction rate of our firm has been increased in last five years					
Our firm always takes precedence over others in the market about the new product/service introduction					

Table I.

Note: [a]Deleted items

Concept	No. of items	Format	Cronbach Alpha	Research sources
Strategic decision speed	3	Scenarios[a]	0.80	Baum and Wally (2003)
Innovation performance	3	LRF[b]	0.74	Prajogo and Sohal (2006) – adapted
Participation	4	LRF[b]	0.88	Andersen (2001)
Autonomy	4	LRF[b]	0.71	Andersen (2001)
Technological sophistication	4	LRF[b]	0.85	Covin *et al.* (2001)
Industrial competitiveness	3	LRF[b]	0.70	Khandwalla (1977)

Notes: [a] LRF – Likert response format (five-point: 1 = strongly disagree to 5 = strongly agree); [b]Scenarios – Three scenarios were presented with follow-up questions

Table II.
Measurement model

decision-making speed?" Then we asked whether those organizational (*H5* and *H6*) and environmental factors (*H7* and *H8*) have direct relationships with innovation performance. Then we tested the relationship between strategic decision-making speed and innovation performance (*H9*). The following (research) model is shaped in the light of those questions.

Analyses and results

Table III shows the variables and the items with factor loadings. The total explained variance is approximately 0.68.

	Items	1	2	3	4	5	6
Participation	P1	0.839					
	P4	0.836					
	P3	0.829					
	P2	0.821					
Technological sophistication	T3		0.895				
	T2		0.842				
	T4		0.786				
	T1		0.688				
Autonomy	A2			0.794			
	A3			0.738			
	A1			0.702			
	A4			0.667			
Strategic decision speed	New production				0.839		
	Acquisition				0.835		
	Technology use				0.834		
Innovation performance	IP2					0.810	
	IP3					0.764	
	IP1					0.687	
Industrial competitiveness	C4						0.776
	C1						0.762
	C3						0.729
	Total explained variances					67.956	

Notes: Extraction method: Principal component analysis; Rotation method: Varimax with Kaiser Normalization; Rotation converged in six iterations

Table III.
Factor loadings of the items

The correlation coefficients at Table IV indicate that strategic decision-making speed is strongly related to innovation performance and participation. In addition, innovation performance is strongly related to participation, autonomy and technological sophistication. Industrial competitiveness has no significant relationship to any of the other factors, except technological sophistication. (The relationship between technological sophistication and industrial competitiveness is significant at the $p < 0.05$ level.)

Table V shows that *H2* (the higher the level of autonomy, the faster the strategic decision making), *H3* (the higher the level of technological sophistication in the industrial environment, the faster the strategic decision making) and *H4* (the higher the level of competitiveness in the industrial environment, the faster the strategic decision making) are not supported. Thus, the study provides no evidence in support of the impact of autonomy, technological sophistication and industrial competitiveness on strategic decision making. *H1*, that extensive participation leads to faster strategic decision making, is supported.

Table VI shows also that participation (*H5*), autonomy (*H6*), technological sophistication (*H7*) and strategic decision-making speed (*H9*) are positively linked to innovation performance. However, the relationship between industrial competitiveness and innovation performance (*H8*) is not significant statistically Figure 2 shows the partly supported model.

Discussion and suggestions

The strong relationships among participation, strategic decision speed and innovation performance is highlighted in the survey. *H1* (the more extensive the participation, the faster the strategic decision making, $\beta = 0.207$, Sig = 0.005), *H5* (the more extensive the participation, the better the innovation performance, $\beta = 0.266$, Sig = 0.000), and *H9* (the faster the strategic decision making, the better the innovation performance, $\beta = 0.139$, Sig = 0.025) are fully supported.

The literature indicates the relationship between the speed of strategic decision making and firm performance (Baum and Wally, 2003; Judge and Miller, 1991; Bourgeois and Eisenhardt, 1988). However, thus far, there has been no sufficient survey investigating the relationship between strategic decision making and innovation performance, so this survey would be the first to examine the relationship and to reveal the positive effect of strategic decision speed on innovation performance. Because fast strategic decisions lead to early adoption of successful new products or improved models and early adoption of efficiency-gaining process technologies even in established industries (Baum and Wally, 2003), it is expected that faster strategic decision making would increase the innovation performance.

Our research findings related to the linkage between participation and strategic decision-making speed are in line with Eisenhardt's finding, which indicates that extensive participation accelerates the pace of decision making (Eisenhardt, 1989, p. 561). Eisenhardt noted that people might delay strategic decision making because of anxiety, inadequate information and lack of time, using the example of Alpha's autocratic CEO, who delayed a new product decision for a year because he worked alone and was burdened with his other duties. Thus, power centralization may give a CEO or an executive the authority to decide but it can

	Mean	Standard deviation	Strategic decision speed[a]	Innovation performance	Participation	Autonomy	Technological sophistication	Industrial competitiveness
Strategic decision speed[a]	8.1573	0.8489	1.000					
Innovation performance	3.6659	0.7837	0.196**	1.000				
Participation	3.9258	0.7698	0.186**	0.390**	1.000			
Autonomy	3.9591	0.7177	−0.005	0.175*	0.195**	1.000		
Technological sophistication	3.2465	0.9149	0.028	0.346**	0.299**	0.013	1.000	
Industrial competitiveness	2.9953	0.6762	−0.006	0.033	0.133	0.072	0.141*	1.000

Notes: [a] Reversed data are used for that item; * Correlation is significant at the 0.05 level (two-tailed); ** Correlation is significant at the 0.01 level (two-tailed)

Table IV. Mean-standard deviation values and correlation coefficients

also create formidable information and psychological barriers to decisions (Eisenhardt, 1989). In addition, when more people are involved in strategic decision-making process, the number of individuals gathering and processing information will increase, which will accelerate the pace and speed the strategic decision-making process. Because *H1*, *H5*, and *H9* are supported, it can be said that organizations that have a more participative and faster strategic decision-making process achieve better innovation performance.

H6 (the higher the level of autonomy, the better the innovation performance) and *H7* (the higher the level of technological sophistication in the industrial environment, the better the innovation performance) are also supported.

However, our survey findings fail to support the other three hypotheses related to strategic decision-making speed: *H2* (the higher the level of autonomy, the faster the strategic decision making), *H3* (the higher the level of technological sophistication in an industrial environment, the faster the strategic decision making), and *H4* (the higher the level of competitiveness in an industrial environment, the faster the strategic decision making. The survey findings also fail to support one hypothesis related to innovation performance: *H8* (the higher the level of competitiveness in an industrial environment, the better the innovation performance). Even though the literature indicates that, in general, there is a strong relationship between strategic decision speed and a dynamic (i.e. a technologically sophisticated and highly competitive) environment (Baum and Wally, 2003;

Table V.
Regression analysis indicating the impact of organizational and environmental factors on strategic decision speed

	β	Sig
Independent variables		
Participation	0.207^{**}	0.005
Autonomy	-0.043	0.536
Technological sophistication	-0.029	0.684
Industrial competitiveness	-0.026	0.703
Dependent variable		
Strategic decision speed: $R^2 = 0.020$; $F = 2.073$		0.086^{***}

Notes: Independent variables: Participation, autonomy, technological sophistication, industrial competitiveness; Dependent variable: Strategic decision speed. $^{*}p < 0.05$ $^{**}p < 0.01$ $^{***}p < 0.10$

Table VI.
Regression analysis indicating the impact of organizational and environmental factors, and strategic decision speed on innovation performance

	β	Sig
Independent variables:		
Participation	0.266^{**}	0.000
Autonomy	0.124^{*}	0.046
Technological sophistication	0.268^{**}	0.000
Industrial competitiveness	-0.048	0.434
Strategic decision speed	0.139^{*}	0.025
Dependent variable		
Innovation performance: $R^2 = 0.020$; $F = 13.397$		0.000^{**}

Notes: Independent variables: Participation, autonomy, technological sophistication, industrial competitiveness; Dependent variable: Innovation performance. $^{*}p < 0.05$ $^{**}p < 0.01$ $^{***}p < 0.10$

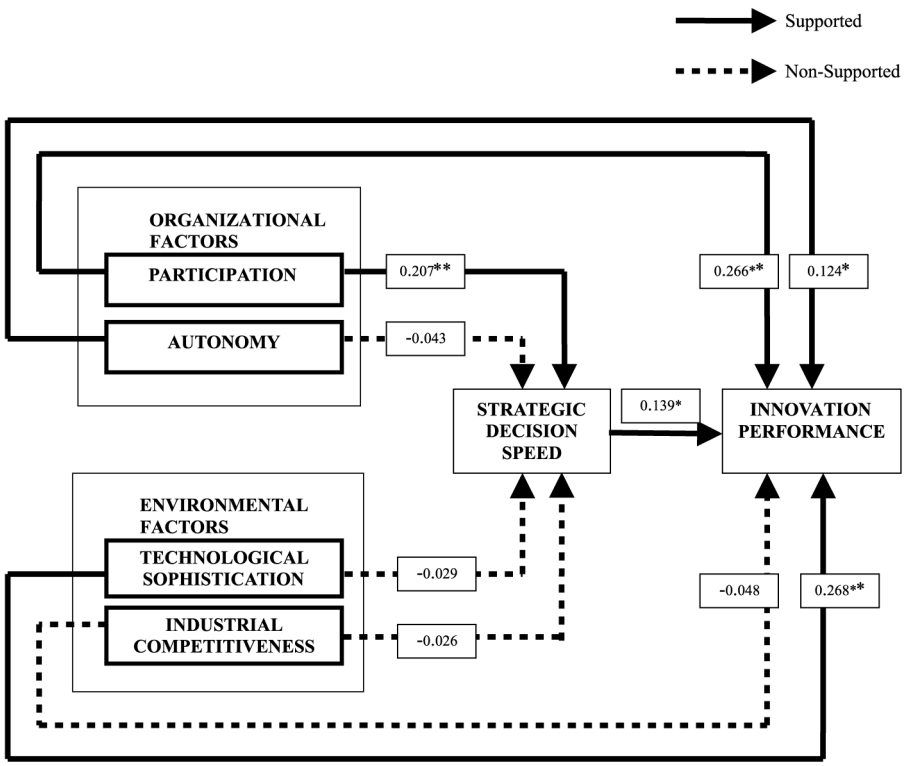

Figure 2.
General research model results

Haleblian and Finkelstein, 1993; Judge and Miller, 1991; Eisenhardt and Bourgeois, 1988; Eisenhardt, 1989), we were not able to find significant relationship between those factors. Our regression analysis results are in line with Smith *et al.* (1988, pp. 223-232), who reported no statistically significant relationship between environmental dimensions and the strategic decision-making process. The difference in our results may be because our survey was conducted in Turkey, an eastern European developing country in which macro-economic decisions of governance are thought to be more important than the other environmental factors for firms in strategic decision making, while other surveys on strategic decision-making speed have been conducted in western countries. Thus, cultural differences may have played a part in the results. In addition, Turkish managers tend to think that they have limited control over the external environment, so they may direct their efforts towards controlling the immediate, internal environment (Papadakis *et al.*, 1998, p. 134) and adjust their strategic decision-making process accordingly. Of course, these findings may change if the survey is extended to firms in different industries or to small or medium-sized firms. Extending the survey is also necessary for generalization of those findings. However, in the light of the those findings we may say that, in Eastern European developing country, Turkey, organizational factors (like decentralized structure) are more important rather than environmental factors (like technological sophistication and industrial

competitiveness) in strategic decision-making and innovation performance. So we might recommend Turkish manufacturers, who wants to increase their innovation performance, to increase participation level in strategic decision-making process, so to speed the strategic decision-making process which is strongly related to innovation performance.

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Appendix. Strategic decision speed

1. Acquisition decision

Assume that your company is one of four important competitors in your market. You believe that the Acar company has 10% of the market, and the rest of you have 30% each. The Acar company has grown rapidly because its product has a feature that is technologically superior. The Acar company typically charges 10% more than your company charges for similar products. Of the remaining competitors, your quality is best and your price is highest. Your sales have been stagnant. Apparently, the Acar product advantage is not protected legally, but your efforts to duplicate the product have been unsuccessful. You have just learned that the CEO of the Acar company has been authorized to talk to you to propose that your company acquire the Acar Company for an amount that is 40% of your company's net worth. Assume : (1) that your company does not have a policy that prevents growth through acquisition, (2) that you have not collected detailed information about the Acar company, and (3) that the CEO of the Acar company is a cooperative negotiator who has a normal level of self interest.

Circle the approximate number of days it would take your organization to decide whether to invest significant time in pursuit of a merger with Acar company.

☐ 1-10 days ☐ 11-30 days ☐ 31-90 days ☐ 91-180 days ☐ More than 181 days

2. New product introduction decision

Assume that your company has just discovered a new way to enhance the value of your products. Unfortunately, there is little available information about the likelihood of the enhancement's acceptance in the marketplace. None of your competitors has a similar product. There is a rumor that the Yıldız company has uncovered a similar enhancement, but they may not be big enough to bring it to market quickly. If you proceed with a full commitment to develop and introduce this new product, you will probably invest an amount equal to 20% of your annual sales. Assume that you have sufficient research, prototype, and production resources to proceed with the new product introduction.

Circle the approximate number of days it would take you/your organization to decide whether to proceed with a commitment to develop and introduce this new product:

☐ 1-10 days ☐ 11-30 days ☐ 31-90 days ☐ 91-180 days ☐ More than 181 days

3. Technology adoption decision

Enterprise resource planning software (ERP) is designed to enhance the efficiency of purchasing, shipping inventory control, and cost accounting. Assume that a new version of ERP has just been released and you think it may help you manage your business; however, you know that it will affect every department and every employee and that business-as-usual will be interrupted. In fact, you have a peer who said that he would never go through changing to a new version of ERP again because implementation required the interaction and retraining of almost every employee. You have discovered that the investment amounts to 1/3 of your expected profits for 2006, not counting the internal expenses of the interruption. The ERP vendor said they had also talked to one of your competitors.

Circle the approximate number of days it would take you/your organization to decide whether to proceed with a full commitment to new ERP software:

☐ 1-10 days ☐ 11-30 days ☐ 31-90 days ☐ 91-180 days ☐ More than 181 days

Figure A1.
Strategic decision speed

Corresponding author
Mehtap Özşahin can be contacted at: m.ozsahin@gyte.edu.tr